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HDP/SB/21 based on PTO/SB/21 (08-00)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | |
|------------------------|-----------------------|
| Application Number | 10/788,460 |
| Filing Date | March 1, 2004 |
| Inventor(s) | Yigal BEJERANO et al. |
| Group Art Unit | 2661 |
| Examiner Name | Unknown |
| Attorney Docket Number | 29250-000999/US |

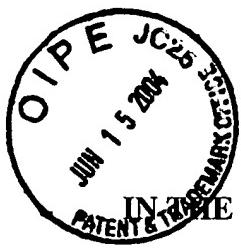
ENCLOSURES (check all that apply)

| | | |
|--|--|--|
| <input type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Assignment Papers (for an Application) | <input type="checkbox"/> After Allowance Communication to Group |
| <input type="checkbox"/> Fee Attached | <input type="checkbox"/> Letter to the Official Draftsperson and _____ Sheets of Formal Drawing(s) | <input type="checkbox"/> LETTER SUBMITTING APPEAL BRIEF AND APPEAL BRIEF (w/clean version of pending claims) |
| <input type="checkbox"/> Amendment | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Group (Notice of Appeal, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address | <input type="checkbox"/> Other Enclosure(s) (please identify below): |
| <input type="checkbox"/> Express Abandonment Request | <input type="checkbox"/> Terminal Disclaimer | |
| <input checked="" type="checkbox"/> Information Disclosure Statement | <input type="checkbox"/> Request for Refund | |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | <input type="checkbox"/> CD, Number of CD(s) _____ | |
| <input type="checkbox"/> Response to Missing Parts/ Incomplete Application | | Remarks |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | | |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|-------------------------------|----------------------------------|---------------------------------|--------------------|
| Firm or Individual name | Harness, Dickey & Pierce, P.L.C. | Attorney Name John E. Curtin | Reg. No. 37,602 |
| Signature | | | |
| Date | June 15, 2004 | | |





PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: **10/788,460**

Filing Date: **March 1, 2004**

Applicant: **Yigal BEJERANO et al.**

Group Art Unit: **2661**

Examiner: **Unknown**

Title: **METHODS AND DEVICES FOR PROVIDING A RELATIVE LEVEL OF FAIRNESS AND QoS GUARANTEES TO WIRELESS LOCAL AREA NETWORKS**

Attorney Docket: **29250-000999/US**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

June 15, 2004

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information submitted for consideration by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D. This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. See the attached foreign patent office communication from a counterpart foreign application:
2. English translations are provided for:
3. Other:

C. The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Art Unit

10/788,458

March 1, 2004

2661

V. THIS IDS IS BEING FILED UNDER

A. 37 C.F.R. § 1.97(b): (check only one box)

1. within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
2. within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
3. before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
4. before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. 37 C.F.R. § 1.97(c): (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
2. See the certification below. No fee is required.

C. 37 C.F.R. § 1.97(d):

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

- A. each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or
- B. no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).
- C. Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

- each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

- A. A check in the amount of \$180.00 is enclosed for the above-identified fee.
- B. Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary

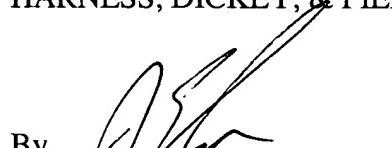
skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By 

John E. Curtin, Reg. No. 37,602

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

JEC:psy

Enclosures:

Form PTO-1449(s)
Documents
Foreign Search Report
Fee
Other:

| | | | |
|--|--|-----------------------|------------|
| FORM HDP-1449 (Based on Form PTO-1449) | | ATTORNEY DOCKET NO. | SERIAL NO. |
| | | 29250-000999/US | 10/788,460 |
| | | APPLICANT | |
| | | Yigal BEJERANO et al. | |
| | | FILING DATE | GROUP |
| | | March 1, 2004 | 2661 |

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**
(Use several sheets if necessary)

Sheet 1 of 2

O I P E JC25 JUN 15 2004 PATENT & TRADEMARK OFFICE

| U.S. PATENT DOCUMENTS | | | | | | |
|------------------------------|---------------------|-----------------|------|------|-----------------|------------------------------|
| Ref. Desig. | Examiner's Initials | Document Number | Date | Name | Class/ Subclass | (If appropriate) Filing Date |
| 1. | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|---------------------------------|---------------------|-----------------|------|---------|-----------------|--------------------|
| Ref. Desig. | Examiner's Initials | Document Number | Date | Country | Class/ Subclass | Translation Yes No |
| 1. | | | | | | |

| OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.) | | |
|---|---------------------|--|
| Ref. Desig. | Examiner's Initials | |
| 1. | | P.S. Henry, and Luo Hui. <u>Wifi: What's next?</u> <i>IEEE Communications Magazine</i> , 40(12):66-72, December 2002. |
| 2. | | Thyagarajan Nandagopal, Tae-Eun Kim, Xia Gao and Vaduvur Bharghavan. <u>Achieving MAC Layer Fairness In Wireless Packet Networks</u> . In <i>Proceedings of the sixth annual international conference on Mobile computing and networking</i> , pages 87-98. ACM Press, 2000. |
| 3. | | A. Kopsel and A. Wolisz. <u>Voice transmission in an IEEE 802.11 WLAN based access network</u> . In <i>Proceedings of WoWMoM 2001</i> , Volume 1, pages 24-33, Rome, Italy, July 2001. |
| 4. | | Constantine Coutras, Sanjay Gupta and Ness B. Shroff. <u>Scheduling of real-time traffic in IEEE 802.11 wireless LANs</u> . <i>Wireless Networks</i> , 6(6):457-466, 2000. |
| 5. | | M. Veeraraghavan, N. Cocker and T. Moors. <u>Support of voice services in IEEE 802.11 wireless LANs</u> . In <i>Proceedings of IEEE INFOCOM'01</i> , Volume 1, pages 488-497, Anchorage, Alaska, April 2001. |
| 6. | | S. Mangold. <u>Coexistence of Overlapping Basic Service Sets</u> . In <i>Proceedings of the Mobile Venue'02</i> , Athens, Greece, May 2002. |
| 7. | | S. Mangold, L. Berleemann and G. Hiertz. <u>QoS Support as Utility for Coexisting Wireless LANs</u> . In <i>Proceedings of the International Workshop on IP Based Cellular Networks</i> , IPCN, Paris, France, May 2002. |

| | |
|-----------|------------------|
| Examiner: | Date Considered: |
|-----------|------------------|

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**
(Use several sheets if necessary)

Sheet 2 of 2

| | |
|-----------------------|------------|
| ATTORNEY DOCKET NO. | SERIAL NO. |
| 29250-000999/US | 10/788,460 |
| APPLICANT | |
| Yigal BEJERANO et al. | |
| FILING DATE | GROUP |
| March 1, 2004 | 2661 |

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

| Ref. Desig. | Examiner's Initials | |
|-------------|---------------------|--|
| 8. | | Qiang Ni, Lamia Romdhani, Thierry Turletti and Imad AAd. <u>QoS Issues and Enhancements for IEEE 802.11 Wireless LAN</u> . <i>Technical Report RR-461</i> , INRIA, France, November 2002. |
| 9. | | S. Mangold, S. Choi, P. May, O. Klein, G. Hiertz and L. Stibor. <u>IEEE 802.11e Wireless LAN for Quality of Service</u> . In <i>Proceedings of the European Wireless</i> , Volume 1, pages 32-39, Florence, Italy, February 2002. |
| 10. | | Madhav V. Marathe, Heinz Breua, Harry B. Hunt III, S. S. Ravi and Daniel J. Rosenkrantz. <u>Simple Heuristics for Unit Disk Graphs</u> . <i>Networks</i> , 25:59-68, 1995. |
| 11. | | Dan Chalmers and Morris Sloman. <u>A Survey of Quality of Service in Mobile Computing Environments</u> . <i>IEEE Communications Surveys</i> , 2(2), 1999. |
| 12. | | Nitin H. Vaidya, Paramvir Bahl and Seema Gupta. <u>Distributed Fair Scheduling in a Wireless LAN</u> . In <i>Proceedings of the sixth annual international conference on Mobile computing and networking</i> , pages 167-178, ACM Press, 2000. |
| 13. | | J. L. Sobrinho and A.S. Krishnakumar. <u>Real-Time Traffic over the IEEE 802.11 Medium Access Control Layer</u> . <i>Bell Labs Technical Journal</i> , pages 172-187, Autumn 1996. |

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.